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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,625	09/04/2003	Frank Dawidowsky	282723US8X	7983
22850 7590 04/24/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER FOUD, HICHAM B	
			ART UNIT 2616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/24/2007	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/24/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/656,625

Applicant(s)

DAWIDOWSKY ET AL.

Examiner

Hicham B. Foud

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/04/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings of Figures 1-6 are objected to under 37 CFR 1.83(a). Drawing elements in Figures 1-6 need descriptive text labels such as in Figure 1 element 6 which should say queue and element 7 data package. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The specification is objected to because of the absence of section headings.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.

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- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

5. Claims 3, 4 and 6-12 are objected to because of the following informalities:

In claim 3 line 6, the term "the transmit queue" has no antecedent basis. Also in line 6, the term "the filling status" has no antecedent basis. Similar problem occurs in claim 4 line 10, in claim 8 line 4 and in claim 10 line 7.

In claim 4 line 3, the term "and/or" is unclear, the applicant has to choose between "and" or "or" because it cannot be both. Similar problem occurs in claim 8 line 6.

In claim 6 lines 3 and 4, the terms "ETSI" and "HIPERLAN/2" respectively are objected to because of the use of the abbreviation. The terms have to be written in full. Similar problem occurs in claims 9, 11 and 12.

In claim 7 lines 7 and 11, the use of the dashes "-" are confusing because it is not known if the statement between the dashes are part of the claim or just clarification and it is not claimed. It is suggested that the applicant removes the dashes.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7, 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Gorsuch et al (US 6,388,999), hereinafter referred to as Gorsuch.

For claim 1, Gorsuch discloses a method to allocate bandwidth, which method is intended for a central controller of a network (see Figure 1 element 104), comprising the following steps allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service (see column 6 lines 21-25; subscriber 101 is granted 20 of 64 channels to allow data rate of 160kbps), wherein an owner of the certain connection is a requesting terminal which is a terminal of the network or the central controller (see Figure 1, subscriber 101 requesting the bandwidth through the reverse or backward communication channel), characterized by freeing a certain amount of the allocated predetermined amount of bandwidth, the certain amount being the difference of the predetermined amount of bandwidth and a needed amount of bandwidth indicated by the owner (see column 6 lines 21-25; wherein the freed bandwidth is the difference between the predetermined bandwidth which is 64 channels and the needed bandwidth which is 20 channels (see Figure 2 channels 300)), and in case the owner requests a re-allocation of at least parts of the freed bandwidth, immediately re-allocating as much of the freed bandwidth, so that the indicated amount of bandwidth is available to the owner (see column 6 lines 21-25, the subscriber is using

20 channels from 64 channels (see Figure 2 channels 300) assigned to allow the data rate of 160 kbps; inherently, the difference of the 64 channels and the 20 channels are reserved for re-allocation in case if there is a need for more channels or bandwidth).

For claim 2, Gorsuch discloses a method characterized by allocating some or all of the certain amount of bandwidth to a connection without quality of service requirements, the connection being a connection of the network (see column 6 lines 23-24, the subscriber 101 is granted 20 of 64 channels; inherently, the difference between the 64 and 20 channels are for re-allocation among the subscribers 101-103 (see column 6 lines 28-30; the limited numbers of channels are divided at any moment in time among the subscriber units).

For claim 3, Gorsuch discloses a method characterized in that the requesting terminal is operated by reserving a predetermined amount of bandwidth for providing a certain quality of service for the connection (see column 6 lines 21-25; subscriber 101 is granted 20 of 64 channels to allow data rate of 160kbps) and characterized by determining the filling status of the transmit queue which indicates how much sending data is in the transmit queue (see Figure 4 and column 8 lines 20-21; L thresholds are an indication of how much data is currently stored in the buffer), determining a needed amount of bandwidth which is needed in a predetermined future, in particular in a predetermined future transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding the predetermined amount of bandwidth (see column 7 lines 7-13; a channel assignor monitors buffer usage to determine an urgency characteristic of each subscriber unit in order to dynamically

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assign an optimum number of channel resources to be allocated to each subscriber unit), and indicating the needed amount of bandwidth to the central controller (see column 8 lines 41-43; an urgency factor for each data source attempting to transmit on the reverse links 111 and see Figure 1; wherein the reverse link is from the subscriber unit to the base station).

For claim 4, Gorsuch discloses a method to reserve bandwidth for a connection of a network, which method is intended for a requesting terminal or a central controller of the network, wherein the requesting terminal and/or the central controller comprises a transmit queue for buffering sending data (see Figure 3; base station 104 includes buffers 211-213 and subscribers 101 includes data buffers 221-225), and the requesting terminal is a terminal of a network with the central controller (see the requesting terminal (subscriber 101) and the central controller (base station 104)), comprising the following steps, reserving a predetermined amount of bandwidth for providing a certain quality of service for the connection characterized by determining the filling status of the transmit queue which indicates how much sending data is in the transmit queue (see Figure 4 and column 8 lines 20-21; L thresholds are an indication of how much data is currently stored in the buffer) , determining a needed amount of bandwidth which is needed in a predetermined future, in particular in a predetermined future transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding the predetermined amount of bandwidth (see column 7 lines 7-13; a channel assignor monitors buffer usage to determine an urgency characteristic of each subscriber unit in order to dynamically assign an optimum number of channel



resources to be allocated to each subscriber unit), and indicating the needed amount of bandwidth to the central controller (see column 8 lines 41-43; an urgency factor for each data source attempting to transmit on the reverse links 111 and see Figure 1; wherein the reverse link is from the subscriber unit to the base station).

Claim 5 is rejected for same reasons as claim 1.

Claim 7 is rejected for same reasons as claim 1, since it is the system that performs the method of claim 1.

For claim 8, Gorsuch discloses a central controller characterized by a transmit queue for buffering sending data (see Figure 4 and column 8 lines 20-21; L thresholds are an indication of how much data is currently stored in the buffer), and a monitoring means, that monitors the filling status of the transmit queue and indicates the needed amount of bandwidth, which depends on the filling status, to the bandwidth freeing means and/or bandwidth re-allocations means (see column 7 lines 7-13; a channel assignor monitors buffer usage to determine an urgency characteristic of each subscriber unit in order to dynamically assign an optimum number of channel resources to be allocated to each subscriber unit).

For claim 10, Gorsuch discloses a requesting terminal of a network having a connection with other terminals of the network or with a central controller of the network (see Figure 1; wherein the subscribers 101-103 are in connection with the base station 104), the connection requiring a certain quality of service and therefore a predetermined amount of bandwidth, comprising a transmit queue for buffering sending data (see Figure 4 and column 8 lines 20-21; L thresholds are an indication of how much data is

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currently stored in the buffer), characterized by a monitoring means, that monitors the filling status of the transmit queue and sends out a request signal to the central controller indicating a needed amount of bandwidth, which depends on the filling status (see column 7 lines 7-13; a channel assignor monitors buffer usage to determine an urgency characteristic of each subscriber unit in order to dynamically assign an optimum number of channel resources to be allocated to each subscriber unit).

***Claim Rejections - 35 USC § 103***

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch.

Gorsuch discloses all the subject matter with the exception of the network is an ad hoc network, in particular operated according to the ETSI HIPERLAN/2 standard. An official notice is taken in that the network of Gorsuch can be an ad hoc network operated according to the ETSI HIPERLAN/2 standard since an ad hoc network is a peer-to-peer network and that the ETSI HIPERLAN/2 standard is the European counterpart to the American 802.11a standard that has quality of service features. Thus, it would have been obvious to the ordinary skill in the art at the time of invention to modify the network as taught by Gorsuch to an ad hoc network operated according to the ETSI HIPERLAN/2 standard for the purpose of the direct communication of the terminals without a network controller or base station and using the ETSI HIPERLAN/2 standard so it can operate in Europe.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

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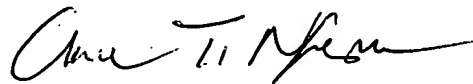
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hicham Foud



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